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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/740,194	12/18/2000	Frank T. Smith	00-052-TAP	4955

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EXAMINER

CASTRO, ANGEL A

ART UNIT PAPER NUMBER

2653

DATE MAILED: 06/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/740,194

Applicant(s)

SMITH ET AL.

Examiner

Angel A. Castro

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 14 December 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-15 and 22-35 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 9 and 10 is/are allowed.
- 6) ☒ Claim(s) 1-4, 12-15 and 22-26 is/are rejected.
- 7) ☒ Claim(s) 5-8, 11 and 27-35 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

This Office Action is in response to Amendment filed 12/14/04.

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-2, 4, 12-15, 22-26 are rejected under 35 U.S.C. 102(e) as being anticipated by Luffel et al.

Regarding claim 1, Luffel et al discloses a removable-unit storage module (figures 1, 3 and 5), comprising:

a housing;

storage cells 13 arranged within the housing, wherein the storage cells contain a plurality of objects;

robotic hands 236 to retrieve the plurality of objects from the storage cells; and

module tracks 20, 22, 24, wherein the module tracks are substantially parallel rows of configurable instances of tracks attached to the housing on which the robotic hands can travel (see figure 5).

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Regarding claim 22, Luffel et al discloses a removable-unit storage network, comprising:

multiple removable-unit storage modules 224, 226; and

bridge tracks 260, 262, which connect the storage modules;

wherein the bridge tracks allow robotic hands 236 to move between module tracks, wherein the module tracks are substantially parallel rows of configurable instances of tracks attached to the housing of the storage module on which the robotic hands travel (see figure 5).

Regarding claim 2, Luffel et al shows that multiplicities of such modules are configured to work as an organized array (see figures 3 or 5).

Regarding claim 4, Luffel et al shows an elevator mechanism for moving robotic hands from one row of module tracks to another (figure 5).

Regarding claim 12, Luffel et al discloses that the robotic hands move in one direction each row of module tracks (see figure 3).

Regarding claims 13 and 14, Luffel et al discloses that the storage cells hold data storage devices 15 (see figure 1, the tape cartridges are inventory items).

Regarding claim 15, Luffel et al shows that the storage cells are arranged in a rule based structure within the housing (columns and rows as seen in figure 5).

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Regarding claim 23, Luffel et al discloses that the bridge tracks 260 allow robotic hands 236 to move between module tracks on different storage modules and retrieve objects from the modules (see figure 5).

Regarding claims 24-25, Luffel et al discloses that the bridge tracks can be connected to and disconnected from the storage module dynamically (see figure 3 where the bridge tracks of elevator 112 connect and disconnect from the module dynamically and independently).

Regarding claim 26, Luffel et al shows that the bridge tracks can be connected to and disconnected from the module track on the storage module (see figures 3 and 5).

3. Claims 1 and 3 are rejected under 35 U.S.C. 102(e) as being anticipated by Ostwald et al (U.S. Pat. 6,262,863).

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Regarding claims 1 and 3, Ostwald et al discloses a removable-unit storage module (figure 1), comprising:

a housing;

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storage cells 103 arranged within the housing, wherein the storage cells contain a plurality of objects;

robotic hands 102 to retrieve the plurality of objects from the storage cells; and

module tracks 121-126, wherein the module tracks are substantially parallel rows of configurable instances of tracks attached to the housing on which the robotic hands can travel (see figure 1).

Ostwald et al further shows that the storage cells, robotic hands and module tracks are on both sides of the storage module (see figure 8).

#### ***Allowable Subject Matter***

4. Claims 9-10 are allowed.
5. Claims 5-8, 11, 27-35 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### ***Response to Arguments***

6. Applicant's arguments filed 12/14/04 have been fully considered but they are not persuasive.

Applicant asserts in page 29:

“Luffel does not teach each and every feature of the presently claimed invention in claim 22. Claim 22 recites the feature of “bridge tracks which connect the storage modules.” Luffel does not teach this feature. The Examiner points to element 260 in Figure 5 as teaching this feature. Luffel teaches that element 260 is an “elevator module” (Luffel, col. 6, line 32). Luffel further teaches that the

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elevator modules are "adapted to receive the cartridge access device 136 and vertically translate the cartridge access device among the plurality of levels 90, 82, etc." (Luffel, col. 5, lines 42-45). An elevator module, which raises and lowers cartridges access devices, is not the same things as bridge tracks."

The Examiner respectfully points out that the tracks in the elevator module 110 bridge the tracks between adjacent modules as it is shown in figure 3, where a single cartridge access device 136 can travel between module 60 and 62 using the tracks in the elevator as a bridge. It is also noted that as the elevator moves from one position to another it configures the tracks of the modules.

### *Conclusion*

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. White et al (U.S. Pat. 6,621,655) discloses a modular data storage system; Semmlow et al (U.S. Pat. 3,938,190) discloses a storage and retrieval system.
8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

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extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Angel A. Castro whose telephone number is 571-272-7584. The examiner can normally be reached on Monday through Thursday, 8 AM to 6 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William R. Korzuch can be reached on 571-272-7589. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



**ANGEL CASTRO**  
**PRIMARY EXAMINER**  
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